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Governor

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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

May 2, 2008

Mr. Lantz Indergard  
Lisbon Valley Mining Company  
920 South County Road 313  
La Sal, Utah 84530

Subject: Partial Bond Release Request, Lisbon Valley Mining, Lisbon Valley Copper Mine, M0370088, San Juan County, Utah

Dear Mr. Indergard:

Provided herein is a comment overview regarding the April 15, 2008 NOI submittal. Because the submittal specifically addressing the surety estimations, this review is focused on that portion only. The surety detail is divided into several reclamation categories. These reclamation categories including status are identified in the table below:

Category	Addressed in 4/15/2008 Submittal (Y/N) incomplete (I)
Rinse Leach Pad	Y/I
Waste Dumps	Y/I
Pond area	Y/I
Plant and Crusher	Y/I
Haul Roads	Y/I
Plant deconstruction	Y/pending
Reseed Soil Stockpile	N
Fences/Berms around open pits	Y/I
Surface Drainage Diversion Ditching	N
Mob/Demob	N
Plugging Wells	N
Post rec monitoring	N

Those categories marked "N" indicate that the submitted package does not address these items. Please direct your attention to providing the unit costs and narrative. Shown below is elaboration regarding each category that contains the letter "T".

**Safety Fences/Berms around Pits:**

The cost associated with fencing at \$1.50/lf is low if the cost of materials is included. Please provide labor and materials costs.

The permit area is not exclusively BLM land. Please provide the fence design/type information. It is important to know what type of fencing is going to be installed. It can be changed at a later date.

The safety berm dimensions, volumes and material type must be submitted.

Please indicate whether or not the safety berms will be vegetated (this information is material dependent. See above comment)

In a previous statement dated Feb. 1, 2007 (which should be dated 2008), you indicated that fencing would be installed in the valley areas near the county road and bermed. Why is no fencing being installed around the Centennial Pit?

Please provide elaboration and justification for the fencing locations. The Division evaluates based on a worse case scenario; therefore, fencing would be required around the entire pit perimeter unless the reason for not installing it is appropriately justified.

**Waste Dumps:**

Please provide the bench width and heights including bench face angles for the steep waste dump areas as shown on the map 4-1. [The steep slopes areas cannot be readily identified on the map-see comments under Map]

Since the surface of the dumps will be contoured. Please address how contouring may positively assist in erosion control.

*The introduction provides information that "rental rates" were used to determine unit costs for equipment. Please cite the rental rate source.*

**General comment regarding rates below:** Part 3.1 of the narrative indicates the costs for the reclamation equipment includes hourly cost, rental, tax, fuel and operator. Per above comment the specific source of information must be provided and/or see comments below:

\*The dozing cost is stated @ 0.42/yd for B. Further information is required. Please indicate the broken down costs for equipment using the D10 and the cost of labor per hour.

The growth media placement cost is stated @ 0.17/yd for B. Further information is required. Please indicate broken down costs per hour for the CAT scraper and the cost of labor/hr.

The dozing cost is stated @ 1.00/yd for C. Further information is required. Please indicate the broken down costs for equipment using the D10 and the cost of labor per hour.

The growth media placement cost is stated @ 0.56/yd for C. Further information is required. Please indicate broken down costs per hour for the scraper and the cost of labor/hr.

The equipment/labor costs/hr. information has been submitted in a table outlining all-inclusive costs/hour by type of equipment. Please include another column that identifies the cost of labor/hr. In the narrative portion of the reclamation surety section please reference this table. It is helpful to assign a title to the table and page number for ease of reference.

Further to the above comment, as shown in the submitted table, hourly costs are not typically whole numbers. Please indicate if rounding occurred and what rounding rules were established to maintain precision of the results.

Please ensure the equipment mobilization/demob detail is provided as well.

Where is table 1? It is referenced in some of the explanation sections, however, it can't be located. This comment applies to each section that references it.

**Ponds:**

Please provide additional detail in the narrative that specifically indicates the evaporation duration and thickness of growth media.

It is difficult to support the costs associated with grading and growth media placement @ 0.51/yd and 0.31/yd respectively. Please ensure the required information is included such as the production rate and the equipment types. In addition, please ensure there are equipment/labor hours assigned to preparing the liners so regrading can occur.

**Heap Leach Pad:**

***Please refer to the comment \* above on page three (3), and include this information for all unit costs identified in the reclamation approach portion of the plan.***

There is an overview in the narrative that explains the leach rinse process, but overall duration and each stage duration are not provided. Please include this information.

What is the water source for the rinse? What quantity of water is anticipated for the rinse? Is the required quantity of water available from the water source? (This information may have been explained, however, cannot locate comments).

Based on the column tests performed, 2.75 lbs. Lime/ton ore is required for final neutralization. Please provide explanation as the spreadsheet shows 2.50 lbs. Lime/ton ore.

In the narrative, identify the percentage of ore that will be neutralized.

Please state how many cells will be reclaimed.

What are the labor costs associated with removing the 'plumbing' include the emitters and sprinklers as well. If they are provided, please reference the spreadsheet location.

There is a discrepancy between the tons shown in the lime cell. The narrative indicated there are 1,416,000 tons and the spreadsheet indicates 5.9M tons. Please address.

The cost estimate summary for the rinse and draindown do match with the spreadsheet numbers. (\$210,000 + \$155,520 + \$150,000), but the multipliers are not clearly identified or the cost basis established. Please provide elaboration.

In the narrative, please include more information about the leach pad surface prep. Please identify the thickness of clay layer and the overburden/waste rock layer.

Please provide extended explanation about what the 'final design of the facility' means.

Some unit costs are missing for placing the soil/clay cap. Include volumes of material moved. (Or reference the spreadsheet).

Include the volume of overburden materials or reference the spreadsheet.

Please provide explanation about regarding the difference in the 450,000 yd<sup>3</sup> of grading in the narrative and the 475,000 yd<sup>3</sup> for grading on the spreadsheet.

#### **Plant Dismantling**

*Pending. Detail required. Will accept the current rate of \$620,000.00 with the commitment to obtain the details within one year of the date of this letter.*

Check with the Division of Solid and Hazardous Waste or the EPA regarding disposal of trash, metal, wood etc. A permit may be required.

#### **Plant and Crusher Area**

***Please refer to the comment \* above on page three (3), and include this information for all unit costs identified in the reclamation approach portion of the plan.***

Please elaborate on and describe the hilfiker wall. What are the dimensions, the materials (wire mesh)? Please provide information regarding the consequences of its removal. Submitted pictures would prove helpful.

### **Haul Roads**

The narrative provides a cost for grading, however there are no costs for placement of growth media, or seeding.

Provide information describing *equipment* used for this component of reclamation.

Include the cubic yards of growth media required for haul roads.

Please provide the approximate length and width of the Sentinel West Pit haul road.

Provide a description about how erosion is being handled on the un-used haul roads that are not going to be reclaimed at the end of the leach cycle.

### **MAP:**

The map titled, Interim Reclamation Plan should

- Label each one of the pit names
- Ensure there is information in the legend that identifies where to obtain additional information on the numbers shown on the map
- North arrow is required
- Please explain the reason for the placement of the west sentinel pit berm segments and why so limiting in that area and non existent for the other pits
- No fencing is shown at the Centennial pit and there is no information in the narrative regarding its absence
- Explain what the cross hatch pattern represents in the legend
- The legend does not explain the 'turquoise color', 'green', 'light brown', 'denim blue'. It is difficult to distinguish between the selected color for steep slope and clay stockpiles. Please change for a greater color distinction.
- The map shows the eastern edge of the map 'cut off'. It is unclear if the permit truncates in that manner, or if information is omitted. Please correct if necessary, and if the permit boundary truncates in that manner, please label this information accordingly on the map.
- Please label the haul roads that will be reclaimed in 2008. Please include acres as well.

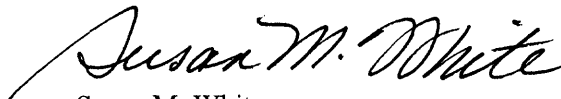
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In the 'reclamation approach' section, the Heap Leach Pad is omitted, therefore there are no unit costs explained.

The Division appreciates the effort Mr. Indergard has expended in compiling this information; it is commendable. Please continue to work with the Division to adequately characterize and support the surety estimate.

Please call if you wish to further discuss this decision, (801) 538-5258.

Sincerely,

A handwritten signature in black ink that reads "Susan M. White". The signature is fluid and cursive, with the first name "Susan" being the most prominent part.

Susan M. White  
Minerals Program Manager

SMW:PBB:pb

cc: Rebecca Doolittle, Moab BLM  
Lynn Jackson, BLM Moab  
Tom Faddies, SITLA

Lance Indergard, LVMC, [Lndergard@lisbonvalley.com](mailto:Lndergard@lisbonvalley.com)

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